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10/551,445	12/04/2006	Ronald H. Eberl	101795.56307US	3020

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CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER	
PINKNEY, DAWAYNE	
ART UNIT	PAPER NUMBER
2873	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,445	EBERL ET AL.	
	Examiner	Art Unit	
	DAWAYNE A. PINKNEY	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-14,17-22 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-14,17-22 and 45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/04/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/20/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in PCT/EP01/11633 on 10/08/2001. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Specification

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the

printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the abstract is not a concise statement of the technical disclosure of the patent, and is not within the range of 50 to 150 words. Correction is required. See MPEP § 608.01(b).

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 06/20/2007 has been considered by the examiner.

Claim Objections

6. Claim 1 is objected to because of the following informalities: line 3, the phrase "systemcomprising:" should be replaced with --system comprising:--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3-14, 17-22, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Eberl (WO 02/033472; already of record).

Regarding **claim 1**, Eberl discloses, an information system for providing information in correlation with light incident on an eye, said system comprising:

a holographic element disposed in front of the eye (120L, 120R of Fig. 1, 620 of Fig. 6, and 821 of Fig. 8c); and

an optical scanning device which detects light incident on the eye by way of the holographic element (141 of Fig. 1, 641 of Fig. 6, and 841 of Fig. 8c).

Regarding **claim 3**, Eberl discloses, the information system according to claim 1, wherein the optical scanning device detects light which is diffracted by the holographic element before it impinges on the eye, and does not enter the eye (141 of Fig. 1, 641 of Fig. 6, and 841 of Fig. 8c).

Regarding **claim 4**, Eberl discloses, the information system according to claim 1, wherein the optical scanning device detects light which was first reflected back from the eye, then diffracted by the holographic element (141 of Fig. 1, 641 of Fig. 6, and 841 of Fig. 8c).

Regarding **claim 5**, Eberl discloses, the information system according to claim 1, wherein:

the holographic element diffracts light originating from a field of vision of the eye only at several discrete wavelengths in the visible range before the light impinges on the eye for the detection by the optical scanning device (120L, 120R of Fig. 1, 620 of Fig. 6, and 821 of Fig. 8c); and

the holographic element diffracts light reflected back from the eye only at one discrete wavelength in the infrared range for the detection by the optical scanning device (131 of Fig. 1, 631a of Fig. 6, and 836 of Fig. 8c).

Regarding **claim 6**, Eberl discloses, the information system according to claim 1, wherein:

the holographic element diffracts light originating from a field of vision of the eye at fewer than a predetermined number of discrete wavelengths in the visible range either before the light impinges on the eye or after its backscattering as a result of the eye, for the detection by the optical scanning device (132 of Fig. 1, and 534 of Fig. 5); and

said predetermined number is selected from the group consisting of 20, 10 and 5 (Claim 6, and Figs. 1 and 5).

Regarding **claim 7**, Eberl discloses, the information system according to claim 1, wherein the holographic element diffracts light originating from the field of vision of the eye at a discrete wavelength in the infrared range, before the light impinges on the eye or after its backscattering as a result of the eyes for the detection by the optical scanning device (132 of Fig. 1, and 534 of Fig. 5).

Regarding **claim 8**, Eberl discloses, the information system according to claim 1, wherein the holographic element diffracts light reflected back by the eye only at a discrete wavelength in the infrared range for the detection by the optical scanning device (131 of Fig. 1, 631a of Fig. 6, and 836 of Fig. 8c).

Regarding **claim 9**, Eberl discloses, the information system according to claim 1, wherein the holographic element diffracts light of one or several discrete wavelengths, at which the optical scanning device has a high sensitivity (132 of Fig. 1, and 534 of Fig. 5).

Regarding **claim 10**, Eberl discloses, the information system according to claim 1, wherein the holographic element diffracts light at several discrete wavelengths such that the

diffracted light is guided to a common point, and the angle of incidence of the light on this point permits an unambiguous, wavelength-independent conclusion as regards an angle of incidence of the light upon the holographic element (132 of Fig. 1, and 534 of Fig. 5).

Regarding **claim 11**, Eberl discloses, the information system according to claim 1, further comprising an optical projection device which projects light into the eye by way of the holographic element (642 of Fig. 6).

Regarding **claim 12**, Eberl discloses, the information system according to claim 11, wherein light detected by the optical detection device and the light projected by the optical projection device travel in opposite directions through a common light guiding system and can be focused by the optical scanning device or projection device such that their respective beams describe the same path from or into the eye (Figs. 6, and 8c).

Regarding **claim 13**, Eberl discloses, an information system for providing information in correlation with information obtained from an eye, said system comprising:

a holographic element disposed in front of the eye (120L, 120R of Fig. 1, 620 of Fig. 6, and 821 of Fig. 8c); and

an optical projection device which projects light into the eye by way of the holographic element (642 of Fig. 6, and 842 of Fig. 8c);

wherein the holographic element diffracts wavelengths of the projected light (Figs. 6, and 8c).

Regarding **claim 14**, Eberl discloses, the information system according to claim 13, wherein the optical projection device projects light only at discrete wavelengths in the visible range or at a wavelength in the infrared range (642 of Fig. 6, and 842 of Fig. 8c).

Regarding **claim 17**, Eberl discloses, the information system according to claim 13, wherein the holographic element comprises one or more optical markings, whose light reflection characteristics can be used by the information system by means of a photodetector for calibrating a projection angle of at least one of the optical projection device and a light guiding device (822, and 841 of Fig. 8c).

Regarding **claim 18**, Eberl discloses, the information system according to claim 1, wherein the holographic element comprises at least one optical marking, whose light reflection characteristics can be used by the information system by means of a photodetector for calibrating a scanning angle of at least one of the optical scanning device and a light guiding device (822 of Fig. 8c).

Regarding **claim 19**, Eberl discloses, the information system according to claim 11, wherein the holographic element comprises at least one optical marking created by reproducing mirroring elements in the holographic element during creation of the holographic element such that said mirroring elements reflect light of at least one wavelength that has fallen onto the holographic element from the optical projection device, back along the path of incidence (822 of Fig. 8c).

Regarding **claim 20**, Eberl discloses, the information system according to claim 17, wherein the photodetector device has a splitter mirror arranged in the light beam of the optical projection device such that it guides a portion of the light impinging on the splitter mirror against the projection direction, in the direction of a photodetector which detects in at least two areas situated concentrically around one another (844 of Fig. 8c).

Regarding **claim 21**, Eberl discloses, the information system according to claim 13, wherein the holographic element has light-diffracting characteristics at at least one discrete wavelength, which correspond to a reflection on the concave side of an surface constructed according to the curvature of a rotationally symmetrical ellipsoid (721 of Fig. 7A).

Regarding **claim 22**, Eberl discloses, the information system according to claims claim 13, wherein: the holographic element has light-diffracting characteristics at at least one discrete wavelength, which corresponds to a diffraction on the concave side of an surface constructed according to the curvature of a rotationally symmetrical ellipsoid (721 of Fig. 7A);

said diffraction corresponds to a reflection on a respective conical surface which is rotationally symmetrical about the axis of rotation of the ellipsoid and is perpendicular with respect to the ellipsoid at the site of the diffraction (Fig. 7A).

Regarding **claim 45**, Eberl discloses, the information system according to claim 13, wherein the holographic element comprises at least one optical marking created by reproducing mirroring elements in the holographic element during creation of the holographic element, such that said mirroring elements reflect light of at least one wavelength that has fallen onto the holographic element from the optical projection device, back along the path of incidence (822 of Fig. 8c).

9. Claims 1, and 4-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Strachan (US 5, 980, 041).

Regarding **claim 1**, Strachan discloses, an information system for providing information in correlation with light incident on an eye, said system comprising:

a holographic element disposed in front of the eye (12 of Fig. 2); and

an optical scanning device which detects light incident on the eye by way of the holographic element (14 of Fig. 2).

Regarding **claim 4**, Strachan discloses, the information system according to claim 1, wherein the optical scanning device detects light which was first reflected back from the eye, then diffracted by the holographic element (14 of Fig. 2).

Regarding **claim 5**, Strachan discloses, the information system according to claim 1, wherein: the holographic element diffracts light originating from a field of vision of the eye only at several discrete wavelengths in the visible range before the light impinges on the eye for the detection by the optical scanning device (34 of Fig. 3); and

the holographic element diffracts light reflected back from the eye only at one discrete wavelength in the infrared range for the detection by the optical scanning device (26 of Fig. 3).

Regarding **claim 6**, Strachan discloses, the information system according to claim 1, wherein: the holographic element diffracts light originating from a field of vision of the eye at fewer than a predetermined number of discrete wavelengths in the visible range either before the light impinges on the eye or after its backscattering as a result of the eye, for the detection by the optical scanning device (26 of Fig. 3); and said predetermined number is selected from the group consisting of 20, 10 and 5 (26 of Fig. 3).

Regarding **claim 7**, Strachan discloses, the information system according to claim 1, wherein the holographic element diffracts light originating from the field of vision of the eye at a discrete wavelength in the infrared range, before the light impinges on the eye or after its

backscattering as a result of the eyes for the detection by the optical scanning device (12 of Fig. 2).

Regarding **claim 8**, Strachan discloses, the information system according to claim 1, wherein the holographic element diffracts light reflected back by the eye only at a discrete wavelength in the infrared range for the detection by the optical scanning device (26 of Fig. 3).

Regarding **claim 9**, Strachan discloses, the information system according to claim 1, wherein the holographic element diffracts light of one or several discrete wavelengths, at which the optical scanning device has a high sensitivity (26 of Fig. 3).

Regarding **claim 10**, Strachan discloses, the information system according to claim 1, wherein the holographic element diffracts light at several discrete wavelengths such that the diffracted light is guided to a common point, and the angle of incidence of the light on this point permits an unambiguous, wavelength-independent conclusion as regards an angle of incidence of the light upon the holographic element (6 of Fig. 2).

Regarding **claim 11**, Strachan discloses, the information system according to claim 1, further comprising an optical projection device which projects light into the eye by way of the holographic element (8 of Fig. 2).

Regarding **claim 12**, Strachan discloses, the information system according to claim 11, wherein light detected by the optical detection device and the light projected by the optical projection device travel in opposite directions through a common light guiding system and can be focused by the optical scanning device or projection device such that their respective beams describe the same path from or into the eye (10, and 18 of Fig. 2).

Regarding **claim 13**, Strachan discloses, an information system for providing information in correlation with information obtained from an eye, said system comprising:

a holographic element disposed in front of the eye (12 of Fig. 2); and

an optical projection device which projects light into the eye by way of the holographic element (8 of Fig. 2);

wherein the holographic element diffracts wavelengths of the projected light (12 of Fig. 2).

Regarding **claim 14**, Strachan discloses, the information system according to claim 13, wherein the optical projection device projects light only at discrete wavelengths in the visible range or at a wavelength in the infrared range (8 of Fig. 2, and 26 of Fig. 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAWAYNE A. PINKNEY whose telephone number is (571)270-1305. The examiner can normally be reached on Monday-Thurs. 8 a.m.- 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DaWayne A Pinkney/
Examiner, Art Unit 2873
09/02/2008

/Ricky L. Mack/
Supervisory Patent Examiner, Art Unit 2873